

IN THE CLAIMS

Please cancel Claims 4, 6-9, 12 and 21-27.

Please amend the remaining Claims as per the following markup copy:

1. (Currently Amended) An integrated circuit, comprising:

an injection-molded substrate having top channels for addition of circuit material, the top channels having sides extending to a plane defining a top surface of the substrate and a bottom beneath the plane;

a die mounted to the substrate;

a plurality of electrical terminals mounted to the substrate for connecting the die to external circuits; ~~and~~

circuit material deposited within the channels for forming an electrical connection between the die and the electrical terminals; and

a solderable plating layer deposited over the circuit material for preventing oxidation of the circuit material.

2. (Previously Amended) The integrated circuit of Claim 1, wherein the substrate further has bottom channels having sides extending to a bottom plane defining a bottom surface of the substrate and a top beneath the top surface, and wherein the circuit material is further deposited within the bottom channels.

3. (Original) The integrated circuit of claim 2, wherein the circuit material connects circuit material within top channels and circuit

material within bottom channels through molded voids in said injection-molded substrate.

4. Canceled.

5. (Original) The integrated circuit of Claim 1, further comprising at least one other die mounted on the substrate, and wherein the circuit material further forms electrical connections between the die and the at least one other die.

Claims 6-9 have been canceled.

10. (Currently Amended) The integrated circuit of Claim 1 ~~[[9]]~~, wherein the circuit material forms wire bond pads for attaching wire-bond connections from the die, and wherein the substrate includes a well for mounting the die and wire-bond pads on a top side of the substrate, and wherein the wire-bond connections extend from the top of the die to the wire bond pads.

11. (Unchanged) The integrated circuit of Claim 1, further comprising a conductive sheet on the bottom of the substrate, and where the circuit material connects circuit material within top channels with the conductive sheet.

12. Canceled.

Claims 13-20 were previously Canceled.

21-27. Canceled

New Claim 28. An integrated circuit, comprising:

an injection-molded substrate having top channels for addition of circuit material, the top channels having sides extending to a plane defining a top surface of the substrate and a bottom beneath the plane;

a die mounted to the substrate;

a plurality of electrical terminals mounted to the substrate for connecting the die to external circuits; ~~and~~
circuit material deposited within the channels for forming an electrical connection between the die and the electrical terminals;
and

a conductive sheet on the bottom of the substrate, and where the circuit material connects circuit material within top channels with the conductive sheet.

New Claim 29. The integrated circuit of Claim 28, wherein the substrate further has bottom channels having sides extending to a bottom plane defining a bottom surface of the substrate and a top beneath the top surface, and wherein the circuit material is further deposited within the bottom channels.

New Claim 30. The integrated circuit of claim 29, wherein the circuit material connects circuit material within top channels and circuit material within bottom channels through molded voids in said injection-molded substrate.

New Claim 31. The integrated circuit of Claim 30, wherein said voids have a substantially conical shape to promote plating growth through said voids.

New Claim 32. The integrated circuit of Claim 31, further comprising at least one other die mounted on the substrate, and wherein the circuit material further forms electrical connections between the die and the at least one other die.

New Claim 33. An integrated circuit, comprising:

- an injection-molded substrate having top channels for addition of circuit material, the top channels having sides extending to a plane defining a top surface of the substrate and a bottom beneath the plane;

- a die mounted to the substrate;

- a plurality of electrical terminals mounted to the substrate for connecting the die to external circuits; and

- circuit material deposited within the channels for forming an electrical connection between the die and the electrical terminals, wherein the substrate further has bottom channels having sides

extending to a bottom plane defining a bottom surface of the substrate and a top beneath the top surface, and wherein the circuit material is further deposited within the bottom channels, wherein the circuit material connects circuit material within top channels and circuit material within bottom channels through molded voids in said injection-molded substrate, and wherein the voids have a substantially conical shape to promote plating growth through the voids.

New Claim 34. The integrated circuit of Claim 33, further comprising at least one other die mounted on the substrate, and wherein the circuit material further forms electrical connections between the die and the at least one other die.

New Claim 35. The integrated circuit of Claim 33, wherein the substrate and the circuit material form die connection pads for solder-ball mounting of the die to the substrate.

New Claim 37. The integrated circuit of Claim 33, further comprising a solderable plating layer deposited over the circuit material for preventing oxidation of the circuit material.

New Claim 38. The integrated circuit of Claim 33, wherein the circuit material forms wire bond pads for attaching wire-bond connections from the die.

New Claim 39. The integrated circuit of Claim 38, wherein the substrate includes a well for mounting the die and wire-bond pads on a top side of the substrate, and wherein the wire-bond connections extend from the top of the die to the wire bond pads.

New Claim 40. An integrated circuit, comprising:

an injection-molded substrate having top channels for addition of circuit material, the top channels having sides extending to a plane defining a top surface of the substrate and a bottom beneath the plane;

a die mounted to the substrate;

a plurality of electrical terminals mounted to the substrate for connecting the die to external circuits; and
circuit material deposited within the channels for forming an electrical connection between the die and the electrical terminals,
wherein the circuit material forms wire bond pads for attaching wire-bond connections from the die, and wherein the substrate includes a well for mounting the die and wire-bond pads on a top side of the substrate, and wherein the wire-bond connections extend from the top of the die to the wire bond pads.

New Claim 41. The integrated circuit of Claim 40, wherein the substrate further has bottom channels having sides extending to a bottom plane defining a bottom surface of the substrate and a top beneath the top surface, and wherein the circuit material is further deposited within the bottom channels.

New Claim 42. The integrated circuit of claim 41, wherein the circuit material connects circuit material within top channels and circuit material within bottom channels through molded voids in said injection-molded substrate.

New Claim 43. The integrated circuit of Claim 40, further comprising at least one other die mounted on the substrate, and wherein the circuit material further forms electrical connections between the die and the at least one other die.

New Claim 44. The integrated circuit of Claim 40, further comprising a conductive sheet on the bottom of the substrate, and where the circuit material connects circuit material within top channels with the conductive sheet.